

Arguments

The Office Action mailed 11/17/2006 states in ¶ 2 of page 2 that the inventions of Groups I and II are unrelated. Inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another and materially different apparatus or by hand; or (2) the apparatus as claimed can be used to practice another materially different process. (MPEP § 806.05). The Office Action states that in the instant case, the different inventions can be used to practice another and materially different process such as modifying the surface of other elements besides a semiconductor wafer (i.e. a piece of glass, wood, etc.).

Applicant respectfully traverses the restriction requirement with respect to the relatedness of the Groups. In Group I, Applicant broadly claims an apparatus for modifying the surface of a semiconductor wafer, comprising a fixed abrasive element comprising a plurality of abrasive particles, a resilient element, and a plurality of rigid segments disposed between said fixed abrasive element and said resilient element. In Group II, Applicant broadly claims a method of modifying the surface of a semiconductor wafer, said method comprising (a) contacting the abrasive article of claim 1 with a semiconductor wafer; and (b) moving said semiconductor wafer and said abrasive article relative to each other. Applicant respectfully submits that in each case, the apparatus and method as claimed relate to modification of the surface of a semiconductor wafer.

In addition, Applicant respectfully submits that the burden is on the Examiner to provide reasonable examples that recite material differences. Applicant submits that merely stating that the claimed apparatus could be used to modify the surface of other elements such as wood or glass fails to meet the burden of providing reasonable examples of material differences. In order to meet this burden, the Examiner should, as a minimum, establish on the record that the art pertaining to wood or glass surface modification would or could reasonably make use of a textured, three-dimensional fixed abrasive element including, at least, a resilient element and a plurality of rigid segments disposed between the fixed abrasive element and the resilient element.

Applicant further respectfully asserts that the difference in the effect of the inventive apparatus should not vary appreciably with the material used in the method or apparatus. Certain effects of the invention should be the same for any material used within each group, e.g. to provide an abrasive article that is able to substantially conform to the global topography of the

surface to be modified while maintaining uniform pressure on the surface (Applicant's Specification at page 5, lines 26-28). These effects are necessary to provide surface uniformity while maintaining good planarization to sub-micrometer tolerances within the wafer die (Applicant's Specification at page 6, lines 7-12). These effects are identical for each of the apparatus of Group I and the method of modifying the surface of a semiconductor wafer of Group II, and are the key terms on which to search. Moreover, in each Group, novel elements of the claims are directed, at least in major part, to the plurality of rigid segments disposed between the fixed abrasive element and the resilient element. Applicant submits that the Groups and claims are thus so interrelated that any search of one group of claims will reveal art to the other. Withdrawal of this restriction requirement is therefore requested.

The Office Action mailed 7/12/2006 further states in ¶ 3 of page 2 that because the inventions of Group I and Group II are independent or distinct, a serious burden would be imposed on the Examiner if restriction is not required, because the inventions require a different field of search (see MPEP § 808.02). Applicant respectfully disagrees with the Examiner's assertion. Applicant respectfully directs the Examiner's attention to the fact that Groups I and II are within the same class (class 451). The classification of Groups I and II in different subclasses is not necessarily sufficient grounds to require restriction. Moreover, Applicant respectfully points out that the Examiner has already searched at least twice, based on the language of the complete set of originally-filed claims 1-17, with minor amendments to correct formal objections and for clarification purposes only. In addition, as indicated in the Office Actions mailed May 4, 2005, and November 25, 2005, the Examiner has twice before completed searches and found allowable subject matter in claims 1 and 4-17. For the Examiner now to assert that it would be overly burdensome to search all claims, after already completing two searches on the full set of claims, seems to raise a long conceded argument.

Furthermore, were restriction to be effected between the claims in Groups I and II, a separate examination of the claims in Groups I and II would require substantial duplication of work on the part of the U.S. Patent and Trademark Office. Even though some additional consideration would be necessary, the scope of analysis of novelty of all the claims of Groups I and II would have to be as rigorous as when only the claims of Group I were being considered by

themselves. Clearly, this duplication of effort would not be warranted where these claims of different subclasses are so interrelated. Further, Applicant submits that restriction between the claims in Groups I and II would place an undue burden on Applicant by requiring payment of a separate filing fee for examination of the non-elected claims, as well as the added costs associated with prosecuting two applications and maintaining two patents. Withdrawal of this restriction requirement is therefore requested.

Election

In order to comply with 37 CFR § 1.142, Applicant elects Group I, claims 1 and 4-14 drawn to an apparatus for modifying a semiconductor wafer, with traverse as provided above.

Conclusion

Claims 1-17 are pending. Applicant has elected Group I. Continued prosecution of this application is respectfully requested. It is believed that no fee is due; however, in the event a fee is required, please charge the fee to Deposit Account No. 13-3723. The Examiner is invited to contact the undersigned at the indicated telephone number with questions that can be resolved with a simple teleconference.

Respectfully submitted,

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JB/spg